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_____ Structure

_____ Bibliographic

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_____ Dialog

_____ APS

_____ Geninfo

_____ SDC

_____ DARC/Questel

_____ Other CGN

PTO-1590 (9-90)

FILE 'REGISTRY' ENTERED AT 10:21:22 ON 16 OCT 2001
L1 17 S HWSYGLRPGQHWSYGLRPG/SQSP

FILE 'CAPLUS' ENTERED AT 10:27:52 ON 16 OCT 2001
L2 10 S L1

L2 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:137047 CAPLUS
DOCUMENT NUMBER: 134:192224
TITLE: Heat shock fusion-based vaccine system
INVENTOR(S): Kenten, John Henry; Roberts, Steven; Lohnas, Gerald
PATENT ASSIGNEE(S): Proteinix Company, USA
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001012216	A1	20010222	WO 2000-US22121	20000814

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-374721 A 19990813
AB Disclosed are self-epitope-contg. heat shock fusion proteins, DNA constructs encoding such fusion proteins, and methods of use. More specifically, disclosed are ubiquitin fusion proteins comprising ubiquitin fused to a plurality of identical or non-identical self-epitopes at specified locations. Immunization of an animal with these ubiquitin fusion proteins elicits an immune response to self-antigens present on endogenous proteins. Generation of an immune response to a specified self-antigen is a mechanism to decrease the levels of the endogenous protein below base-line.
IT **239469-52-4 239478-50-3 239478-55-8**
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heat shock fusion-based vaccine system)
IT **201358-91-0**
RL: PRP (Properties)
(unclaimed sequence; heat shock fusion-based vaccine system)
REFERENCE COUNT: 4
REFERENCE(S):
(1) Au-Young; US 5989883 A 1999 CAPLUS
(2) Hoechst Aktiengesellschaft; EP 0848061 A2 1998 CAPLUS
(3) Quail; US 5510474 A 1996 CAPLUS
(4) Srivastava; US 6007821 A 1999 CAPLUS

L2 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:608610 CAPLUS

DOCUMENT NUMBER: 133:206755
TITLE: Immunogens comprising a peptide and a carrier derived from Haemophilius influenzae protein D
INVENTOR(S): Coste, Michel; Lobet, Yves; Van-Mechelen, Marcelle Paulette; Verriest, Christophe
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050077	A1	20000831	WO 2000-EP1457	20000222

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

GB 1999-4405	A	19990225
GB 1999-4408	A	19990225
GB 1999-4412	A	19990225
GB 1999-19260	A	19990813

AB The present invention provides peptide immunogens linked to a carrier wherein the carrier is derived from Haemophilius Influenzae Protein D or fragments thereof. Compns comprising the antigen peptide, protein D epitope or mimotope, and immune adjuvant (e.g. saponin, aluminum salt, oil in water emulsion, or liposome) are useful for treating infection or chronic diseases.

IT **290297-75-5**
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunogens comprising a peptide and a carrier derived from Haemophilius influenzae protein D)

REFERENCE COUNT: 6
REFERENCE(S):
(1) Akkoyunlu, M; INFECTION AND IMMUNITY 1997, V65(12), P5010 CAPLUS
(2) Ciba Geigy Ag; WO 9731948 A 1997 CAPLUS
(3) Forsgren Arne; US 5858677 A 1999 CAPLUS
(4) Godart Stephane Andre Georges; WO 9916884 A 1999 CAPLUS
(5) Proteus Molecular Design; EP 0293530 A 1988 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:288606 CAPLUS
DOCUMENT NUMBER: 133:348810
TITLE: Palmitoyl-thioester peptides as vaccines: highly immunogenic and easy to synthesize
AUTHOR(S): Schaaper, Wim M. M.; Beekman, Nico J. C. M.; Langeveld, Jan P. M.; Dalsgaard, Kristian;

Meloen, Rob H.
CORPORATE SOURCE: Institute for Animal Science and Health, Lelystad, NL-8200AB, Neth.
SOURCE: Pept. 1998, Proc. Eur. Pept. Symp., 25th (1999), Meeting Date 1998, 538-539. Editor(s): Bajusz, Sandor; Hudecz, Ferenc. Akademiai Kiado: Budapest, Hung.
CODEN: 68WKAY
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A tandem peptide from GnRH and a peptide from the N-terminus of VP2 of canine parvo virus (CPV) were synthesized. Palmitic acid or hexadecane were coupled via a thioester-, and amide-, a thioether- or a disulfide bond. These peptide constructs were used to immunize pigs (GnRH) or guinea pigs (CPV) and were compared with the corresponding peptide-KLH conjugates with respect to testis size (GnRH) or the induction of antibodies (CPV). In all expts., thioesters proved to be as effective as peptide-KLH-conjugates and much more effective than the other tested constructs. Thus, palmitoyl thioesters are an effective and well-defined alternative for peptide conjugates in vaccines.

IT **305813-24-5P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(palmitoyl-thioester peptides as vaccines)

REFERENCE COUNT: 3
REFERENCE(S):
(1) Beekman, N; J Peptide Res 1997, V50, P357 CAPLUS
(2) Langeveld, J; Vaccine 1994, V12, P1473 CAPLUS
(3) Oonk, H; Livest Product Sci 1995, V42, P63

L2 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:549281 CAPLUS
DOCUMENT NUMBER: 131:183865
TITLE: Heat shock fusion-based vaccine system
INVENTOR(S): Kenten, John H.; Tramontano, Alfonso; Pilon, Aprile L.; Lohnas, Gerald L.; Roberts, Steven F.
PATENT ASSIGNEE(S): Igen International, Inc., USA
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9942472	A1	19990826	WO 1999-US1588	19990126

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,

CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9924704	A1	19990906	AU 1999-24704	19990126
PRIORITY APPLN. INFO.:			US 1998-26276	19980219
			WO 1999-US1588	19990126

AB Disclosed are epitope-contg. heat shock fusion proteins, DNA constructs encoding such fusion proteins, and methods of use. More specifically, disclosed are ubiquitin fusion proteins comprising ubiquitin fused to a plurality of identical or non-identical epitopes at specified locations derived from e.g. tumor necrosis factor, gonadotropin releasing hormone, Igs., chorionic gonadotropin, inhibin, sperm protein, HIV protein, and animal growth hormones. The ubiquitin fusion proteins are useful as vaccines for reducing allergic response, reducing sperm count in male, and increasing growth rate of animal, and for producing and identifying antibodies in clin. samples.

IT **201358-91-0P 239469-52-4P 239478-50-3P**
239478-55-8P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(heat shock fusion-based vaccine system)

REFERENCE COUNT: 7
REFERENCE(S):
(2) Lussow; European Journal of Immunology 1991, V21, P2297 CAPLUS
(3) Mascarenhas; US 5459051 A 1995 CAPLUS
(4) Mouritsen & Elsner; WO 95/05849 1995 CAPLUS
(5) Pilon; Biotechnology progress 1997, V13(4), P374 CAPLUS
(6) Van Der Zee; Vaccine 1995, V13(8), P753 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:476942 CAPLUS
DOCUMENT NUMBER: 129:240142
TITLE: New GnRH-like peptide construct to optimize efficient immunocastration of male pigs by immunoneutralization of GnRH
AUTHOR(S): Oonk, H. B.; Turkstra, J. A.; Schaaper, W. M. M.; Erkens, J. H. F.; Weerd, M. H. Schuitemaker-De; Van Nes, A.; Verheijden, J. H. M.; Meloen, R. H.
CORPORATE SOURCE: Department of Molecular Recognition ID-DLO Institute for Animal Science and Health, Lelystad, 8219 PH, Neth.
SOURCE: Vaccine (1998), 16(11/12), 1074-1082
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Castration of male pigs is routinely performed to prevent the occurrence of boar taint in pig carcasses. However, boar taint can also be eliminated by immunol. castration using a synthetic peptide vaccine against GnRH. For pig farming, to make immunocastration a feasible alternative method to surgical castration, the compn. of the vaccine has to be not only reliable and effective but also cost-efficient and safe. Previously the authors have developed an effective immunocastration vaccine by replacing the monomer GnRH by

a much more immunogenic tandem peptide. However, this tandem-GnRH vaccine prepn. needs Complete Freund's adjuvant and to be applied at a relatively high dose. Therefore, alternative antigens were designed to cope with this problem and tested with different adjuvants and dosages. An effective new antigen was designed based on a GnRH-tandem peptide, which was dimerized and modified in one amino acid position of the decapeptide to allow conjugation of this tandem-dimer to ovalbumin. In mild adjuvants and in low dosage, this antigen was very effective in reducing testis wt., serum LH and androstenone level in backfat. Thus, an improved immunocastration vaccine has been designed that is relatively cost-efficient and highly efficacious in two vaccinations at low dose.

IT **213189-03-8 213263-31-1**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BIOL (Biological study); USES (Uses)
(new GnRH-like peptide construct to optimize efficient immunocastration of male pigs by immunoneutralization of GnRH)

L2 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:42301 CAPLUS
DOCUMENT NUMBER: 128:101091
TITLE: Vaccine comprising antigens bound to carriers through labile bonds
INVENTOR(S): Beekman, Nico Johannes Christiaan Maria; Schaaper, Wilhelmus Martinus Maria; Dalsgaard, Kristian; Meloen, Robert Hans
PATENT ASSIGNEE(S): Stichting Instituut voor Dierhouderij en Diergezondheid (Id-Dlo), Neth.; Danish Veterinary Institute for Animal Virus Research; Beekman, Nico Johannes Christiaan Maria; Schaaper, Wilhelmus Martinus Maria; Dalsgaard, Kristian; Meloen, Robert Hans
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9749425	A1	19971231	WO 1997-NL354	19970624
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2260761	AA	19971231	CA 1997-2260761	19970624
AU 9731938	A1	19980114	AU 1997-31938	19970624
AU 732085	B2	20010412		
EP 912195	A1	19990506	EP 1997-927484	19970624
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9709993	A	19990810	BR 1997-9993	19970624

JP 2000513353 T2 20001010 JP 1998-502729 19970624
PRIORITY APPLN. INFO.: EP 1996-201766 A 19960625
WO 1997-NL354 W 19970624

AB The invention is in the field of vaccines and immunogenic prepns. Normally in these prepns. antigens and carrier compds. are irreversibly coupled in a stable bond. The invention, to the contrary, provides vaccines and immunogenic prepns. in which the antigen (be it protein or peptide or carbohydrate or any other mol. to be used as an antigen for immunization/vaccination procedures) and the carrier compd. are coupled in a reversible and labile way, with a so-called labile link. In this way, as is demonstrated in the exptl. part of this application, surprisingly a better immune response can be elicited by an in itself poorly immunogenic antigen than by methods that provide a stable link between the antigen and carrier compd.

IT **201358-91-0P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugate; vaccine comprising antigens bound to carriers through labile bonds)

L2 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:725290 CAPLUS
DOCUMENT NUMBER: 127:346645
TITLE: Synthetic peptide vaccines: palmitoylation of peptide antigens by a thioester bond increases immunogenicity
AUTHOR(S): Beekman, Nico J. C. M.; Schaaper, Wim M. M.; Tesser, Godefridus I.; Dalsgaard, Kristian; Kamstrup, Soren; Langeveld, Jan P. M.; Boshuizen, Ronald S.; Meloen, Rob H.
CORPORATE SOURCE: Institute for Animal Science and Health (ID-DLO), Lelystad, NL-8200 AB, Neth.
SOURCE: J. Pept. Res. (1997), 50(5), 357-364
CODEN: JPERFA; ISSN: 1397-002X
PUBLISHER: Munksgaard
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Synthetic peptides have frequently been used to immunize animals. However, peptides less than about 20 to 30 amino acids long are poor immunogens. In general, to increase its immunogenicity, the presentation of the peptide should be improved, and mol. wt. needs to be increased. Many attempts have been made to couple peptide immunogens to different carrier proteins [e.g. keyhole limpet hemocyanin (KLH) or ovalbumin]. This leads to very complex structures, however. The authors used a controlled conjugation of a peptide to a single long-chain fatty acid like palmitic acid by a thioester or an amide bond. These S-palmitoylated peptides were much more immunogenic than N-palmitoylated peptides and at least similar to KLH-conjugated peptides with respect to appearance and magnitude of induced antibodies (canine parvovirus) or immunocastration effect (gonadotropin-releasing hormone). Conditions were established for chem. synthesis of thioesters by soln. and solid-phase methods. In both phases, Cys(SCMe3) could only be deprotected efficiently using phosphines, and S-acylation was accomplished using std. coupling at pH 5. The authors speculate that, in vivo, the presence of an appropriate fatty acid chain, chem. linked through a labile thioester bond, greatly enhances

immunogenicity, because it represents a favorable substrate for cleavage by cellular thioesterases in cells of the immune system.

IT **198268-54-1P 198268-55-2P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of synthetic peptide vaccines via palmitoylation of cysteine-contg. peptide antigens)

L2 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:151535 CAPLUS
DOCUMENT NUMBER: 126:156415
TITLE: LHRH tandem peptide analogs and dimers, immunogenic compositions, vaccines, medical preparations, and immunocastration
INVENTOR(S): Meloen, Robert Hans; Oonk, Hendrica Berendina
PATENT ASSIGNEE(S): Dlo Instituut Voor Dierhouderij En Diergezondheid, Neth.; Meloen, Robert Hans; Oonk, Hendrica Berendina
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640755	A1	19961219	WO 1996-NL223	19960606
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
CA 2221129	AA	19961219	CA 1996-2221129	19960606
AU 9659130	A1	19961230	AU 1996-59130	19960606
AU 710778	B2	19990930		
EP 832107	A1	19980401	EP 1996-916372	19960606
EP 832107	B1	20010905		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
CN 1187200	A	19980708	CN 1996-194609	19960606
BR 9609411	A	19991214	BR 1996-9411	19960606
RU 2147307	C1	20000410	RU 1998-100226	19960606
AT 205219	E	20010915	AT 1996-916372	19960606
US 5885966	A	19990323	US 1997-981557	19971205
US 6284733	B1	20010904	US 1999-274048	19990322
PRIORITY APPLN. INFO.:			US 1995-476013 A	19950607
			US 1995-477298 A	19950607
			WO 1996-NL223 W	19960606
			US 1997-981557 A1	19971205

AB The invention relates to a modified tandem LHRH-peptide vaccine prepn. in which glycine-6 of one or both LHRH decapeptides that constitute the tandem unit is substituted by a dextro-rotatory amino acid that contains a side chain to which a protein carrier can be coupled. In addn., the tandem LHRH-peptide can be brought into a tandem-dimer form which is also suitable for producing a vaccine that is effective against LHRH (LH releasing hormone) also referred to as GnRH (gonadotropin-releasing hormone), for immunol.

castration, to inhibit or affect reproductive functions or to affect behavior in vertebrates in general and in domesticated animals and man in particular.

IT **186811-45-0 186811-46-1**
RL: BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(LHRH analog; LHRH tandem peptide analogs and dimers, immunogenic compns., vaccines, medical prepns., and immunocastration)

L2 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:525490 CAPLUS
DOCUMENT NUMBER: 121:125490
TITLE: Efficient immunocastration of male piglets by immunoneutralization of GnRH using a new GnRH-like peptide
AUTHOR(S): Meloen, R. H.; Turkstra, J. A.; Lankhof, H.; Puijk, W. C.; Schaaper, W. M. M.; Dijkstra, G.; Wensing, C. J. G.; Oonk, R. B.
CORPORATE SOURCE: Central Veterinary Institute (CDI-DLO), Lelystad, 8200 AB, Neth.
SOURCE: Vaccine (1994), 12(8), 741-6
CODEN: VACCDE; ISSN: 0264-410X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Active immunization to immunomodulate regulatory processes suffers from the disadvantage that the antigen is usually self and therefore poorly immunogenic. This has been well illustrated by the long-standing experience with immunocastration vaccines targeting GnRH, a 10-amino acid peptide. Not all animals vaccinated with these vaccines are equally affected, even after multiple vaccinations. This is a severe handicap when immunocastration vaccines are applied to male piglets to circumvent surgical castration. Surgical castration is universally practiced to prevent boar taint, produced in the testicles of mature boars. Alternative immunocastration is only acceptable if all animals are equally affected using a min. of vaccinations. Vaccines based on the GnRH peptide itself cannot meet these goals. By using a GnRH-like peptide, a 20-amino acid tandem repeat of the amino acid sequence of the GnRH peptide, these goals can be attained. Using the tandem GnRH peptide to vaccinate male piglets completely abolished the development and endocrinol. functioning of the testicles, in contrast to monomer GnRH. Thus, superior antigens can be made for effective immunomodulation by appropriate alteration of the antigen.

IT **157002-76-1**
RL: BIOL (Biological study)
(immunocastration of male piglets by vaccination with)

L2 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:241387 CAPLUS
DOCUMENT NUMBER: 114:241387
TITLE: Tandem LHRH peptides, immunogenic composition and vaccine or medicinal preparation; a method of immunizing a mammal against LHRH, and a method of improving the meat quality of pigs
INVENTOR(S): Meloen, Robert Hans; Wensing, Cornelis Johannes Gerardus
PATENT ASSIGNEE(S): Stichting Centraal Diergeneeskundig Instituut, Neth.

SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9011298	A1	19901004	WO 1990-NL37	19900322
W: CA, HU, JP, SU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
NL 8900726	A	19901016	NL 1989-726	19890323
CA 2049325	AA	19900924	CA 1990-2049325	19900322
EP 464124	A1	19920108	EP 1990-905697	19900322
EP 464124	B1	19940323		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
JP 04504256	T2	19920730	JP 1990-505371	19900322
JP 3098771	B2	20001016		
HU 62916	A2	19930628	HU 1990-2930	19900322
HU 214742	B	19981028		
AT 103297	E	19940415	AT 1990-905697	19900322
ES 2050435	T3	19940516	ES 1990-905697	19900322
RU 2078770	C1	19970510	RU 1990-5001726	19900322
US 5484592	A	19960116	US 1993-149001	19931108

PRIORITY APPLN. INFO.:

NL 1989-726	A	19890323
EP 1990-905697	A	19900322
WO 1990-NL37	W	19900322
US 1991-761849	B1	19910917

AB The title peptides comprise .gtoreq.2 LHRH (or LHRH deriv.) sequences in tandem. Thus, the peptide EHWSYGLRPGQHWSYGLRPGC (I) was coupled to keyhole limpet hemocyanin, emulsified, and injected into young male pigs. Testes of the pigs were smaller than for control animals; in 4/5 animals, testes were no longer measurable. I was more effective than either LHRH or [D-Trp6]LHRH.

IT **133978-60-6 133978-60-6D**, protein conjugates
133978-61-7 133978-61-7D, protein conjugates
133991-73-8 133991-73-8D, protein conjugates
133991-74-9 133991-74-9D, protein conjugates
RL: BIOL (Biological study)
(for pig vaccine and pork improvement)

E93 THROUGH E109 ASSIGNED

FILE 'REGISTRY' ENTERED AT 10:29:25 ON 16 OCT 2001
L3 17 SEA FILE=REGISTRY ABB=ON PLU=ON (201358-91-0/BI OR 133978-60-6/BI OR 133978-61-7/BI OR 133991-73-8/BI OR 133991-74-9/BI OR 239469-52-4/BI OR 239478-50-3/BI OR 239478-55-8/BI OR 157002-76-1/BI OR 186811-45-0/BI OR 186811-46-1/BI OR 198268-54-1/BI OR 198268-55-2/BI OR 213189-03-8/BI OR 213263-31-1/BI OR 290297-75-5/BI OR 305813-24-5/BI)

L4 17 L3 AND L1

L4 ANSWER 1 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **305813-24-5** REGISTRY
CN L-Cysteinamide, L-.alpha.-glutamyl-L-histidyl-L-tryptophyl-L-seryl-L-

tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-
histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-
prolylglycyl-L-.alpha.-glutamyl-L-histidyl-L-tryptophyl-L-seryl-L-
tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-
histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-
prolylglycyl-, 41-hexadecanoate (9CI) (CA INDEX NAME)

CI MAN
SQL 41

SEQ 1 EHWSYGLRPG QHWSYGLRPG EHWSYGLRPG QHWSYGLRPG C
========== ========== ========== ==========

HITS AT: 2-20, 22-40

REFERENCE 1: 133:348810

L4 ANSWER 2 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **290297-75-5** REGISTRY
CN Glycine, L-.alpha.-glutamyl-L-histidyl-L-tryptophyl-L-seryl-L-
tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-
histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-
prolylglycyl-L-seryl-L-cysteinyl-L-.alpha.-glutamyl-L-histidyl-L-
tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-
L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-
leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1: PN: WO0050077 SEQID: 3 claimed protein
CI MAN
SQL 42

SEQ 1 EHWSYGLRPG QHWSYGLRPG SCEHWSYGLR PGQHWSYGLR PG
========== ========== ======= ========== ==

HITS AT: 2-20, 24-42

REFERENCE 1: 133:206755

L4 ANSWER 3 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **239478-55-8** REGISTRY
CN L-Cysteine, L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-
tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-
histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-
prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-
tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-
histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-
prolylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 13: PN: WO0112216 SEQID: 34 claimed protein
CI MAN
SQL 41

SEQ 1 QHWSYGLRPG QHWSYGLRPG QHWSYGLRPG QHWSYGLRPG C
========== ========== ========== ==========

HITS AT: 2-40

REFERENCE 1: 134:192224

REFERENCE 2: 131:183865

L4 ANSWER 4 OF 17 REGISTRY COPYRIGHT 2001 ACS

RN **239478-50-3** REGISTRY
CN Glycine, L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 14: PN: WO0112216 SEQID: 35 claimed protein
CI MAN
SQL 40

SEQ 1 QHWSYGLRPG QHWSYGLRPG QHWSYGLRPG QHWSYGLRPG
========== ========== ========== ==========

HITS AT: 2-40

REFERENCE 1: 134:192224

REFERENCE 2: 131:183865

L4 ANSWER 5 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **239469-52-4** REGISTRY
CN Glycine, L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 26: PN: WO0112216 SEQID: 26 claimed sequence
SQL 20

SEQ 1 QHWSYGLRPG QHWSYGLRPG
========== ==========

HITS AT: 2-20

REFERENCE 1: 134:192224

REFERENCE 2: 131:183865

L4 ANSWER 6 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **213263-31-1** REGISTRY
CN Glycinamide, N-acetyl-L-cysteinyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolyl-, bimol. (1.fwdarw.1')-disulfide (9CI) (CA INDEX NAME)
CI MAN
SQL 42,21,21

SEQ 1 CQHWSYGLRP GQHWSYGLRP G
========== ========== =

HITS AT: 3-21

SEQ 1 CQHWSYGLRP GQHWSYGLRP G
========== ========== =

HITS AT: 3-21

REFERENCE 1: 129:240142

L4 ANSWER 7 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **213189-03-8** REGISTRY
CN L-Cysteinamide, 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-, bimol. (21.fwdarw.21')-disulfide (9CI) (CA INDEX NAME)
CI MAN
SQL 42,21,21

SEQ 1 XHWSYGLRPG QHWSYGLRPG C
========== ==========

HITS AT: 2-20

SEQ 1 XHWSYGLRPG QHWSYGLRPG C
========== ==========

HITS AT: 2-20

REFERENCE 1: 129:240142

L4 ANSWER 8 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **201358-91-0** REGISTRY
CN Glycine, L-.alpha.-glutamyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 30: PN: WO0112216 SEQID: 30 unclaimed sequence
SQL 20

SEQ 1 EHWSYGLRPG QHWSYGLRPG
========== ==========

HITS AT: 2-20

REFERENCE 1: 134:192224

REFERENCE 2: 131:183865

REFERENCE 3: 128:101091

L4 ANSWER 9 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **198268-55-2** REGISTRY
CN L-Lysinamide, 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-N6-(1-oxohexadecyl)- (9CI) (CA INDEX NAME)
SQL 21

SEQ 1 XHWSYGLRPG QHWSYGLRPG K
========== ==========

HITS AT: 2-20

REFERENCE 1: 127:346645

L4 ANSWER 10 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **198268-54-1** REGISTRY
CN L-Cysteinamide, 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-

tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-, 21-hexadecanoate (9CI) (CA INDEX NAME)
SQL 21

SEQ 1 XHWSYGLRPG QHWSYGLRPG C
========= ==========

HITS AT: 2-20

REFERENCE 1: 127:346645

L4 ANSWER 11 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **186811-46-1** REGISTRY
CN Glycinamide, L-cysteinyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolyl-, bimol. (1.fwdarw.1')-disulfide (9CI) (CA INDEX NAME)
CI MAN
SQL 42,21,21

SEQ 1 CQHWSYGLRP GQHWSYGLRP G
======== ========== =

HITS AT: 3-21

SEQ 1 CQHWSYGLRP GQHWSYGLRP G
======== ========== =

HITS AT: 3-21

REFERENCE 1: 126:156415

L4 ANSWER 12 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **186811-45-0** REGISTRY
CN L-Cysteine, 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-, bimol. (21.fwdarw.21')-disulfide (9CI) (CA INDEX NAME)
CI MAN
SQL 42,21,21

SEQ 1 XHWSYGLRPG QHWSYGLRPG C
========= ==========

HITS AT: 2-20

SEQ 1 XHWSYGLRPG QHWSYGLRPG C
========= ==========

HITS AT: 2-20

REFERENCE 1: 126:156415

L4 ANSWER 13 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **157002-76-1** REGISTRY
CN Glycine, 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)
SQL 20

SEQ 1 XHWSYGLRPG QHWSYGLRPG
========== ==========

HITS AT: 2-20

REFERENCE 1: 121:125490

L4 ANSWER 14 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **133991-74-9** REGISTRY
CN L-Cysteinamide, 5-oxo-L-prolyl-L-histidyl-1-formyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl- (9CI) (CA INDEX NAME)
SQL 21

SEQ 1 XHWSYGLRPG QHWSYGLRPG C
========== ==========

HITS AT: 2-20

REFERENCE 1: 114:241387

L4 ANSWER 15 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **133991-73-8** REGISTRY
CN L-Cysteinamide, 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-1-formyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl- (9CI) (CA INDEX NAME)
SQL 21

SEQ 1 XHWSYGLRPG QHWSYGLRPG C
========== ==========

HITS AT: 2-20

REFERENCE 1: 114:241387

L4 ANSWER 16 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **133978-61-7** REGISTRY
CN L-Cysteinamide, 5-oxo-L-prolyl-L-histidyl-1-formyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-1-formyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl- (9CI) (CA INDEX NAME)
SQL 21

Q 1 XHWSYGLRPG QHWSYGLRPG C
========== ==========

HITS AT: 2-20

REFERENCE 1: 114:241387

L4 ANSWER 17 OF 17 REGISTRY COPYRIGHT 2001 ACS
RN **133978-60-6** REGISTRY
CN L-Cysteinamide, 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl-L-glutaminyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycyl- (9CI) (CA INDEX NAME)
SQL 21

SEQ 1 XHWSYGLRPG QHWSYGLRPG C
========== ==========

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HITS AT: 2-20

REFERENCE 1: 114:241387

FILE 'HOME' ENTERED AT 10:30:16 ON 16 OCT 2001

Searcher : Shears 308-4994